

Introduction

This guide has been produced to assist you in the installation of your new Worldwide Diagnostic System, WDS.

You should read and understand the important safety information contained in this guide before you install and use WDS. You are advised to keep this guide with WDS for reference and troubleshooting.

You must assemble and prepare WDS for use by following the instructions. You should read and understand the instructions before assembling and preparing WDS, and before using the equipment.

This guide contains clear instructions on assembling, connecting and preparing the system for use. It also contains details on fault diagnosis and maintenance procedures. These instructions show you how to proceed should a failure occur.

WDS provides Ford vehicle diagnostic procedures and tools. It also contains on-line help software that will assist you in operating the system.

The information in this guide, and the on-line help software, are supplementary to any Ford WDS Training Courses.

The heart of the system is the Portable Test Unit (PTU), which is a powerful computer and measurement system with a touchscreen and user friendly interface. WDS includes a set of Cables, Adaptors and Transducers (CATS), that allow the PTU to be connected to various vehicle systems and components.

The batteries in the PTU require an initial conditioning operation. This is essential for accurate indication of WDS battery status. It is suggested that the procedure is left to complete overnight as it will take approximately 5 to 9 hours and the system will be completely locked during this operation. Software within the PTU will instruct you when it is subsequently necessary to run this procedure. Remember to condition the batteries overnight, following receipt of a new or replacement PTU.

This function is available under System Utilities described later.

All the diagnostic and on-line help software is held on the hard disk drive of the PTU. The software is loaded from a CD in the Docking Station while the PTU is docked. The PTU is normally used and stored in position on the Docking Station.

The PTU can be used away from the Docking Station. During this time the PTU is powered by its own battery supply, or by the vehicle battery if the PTU is connected to a vehicle. The PTU battery is provided to power the unit for up to 20 minutes.

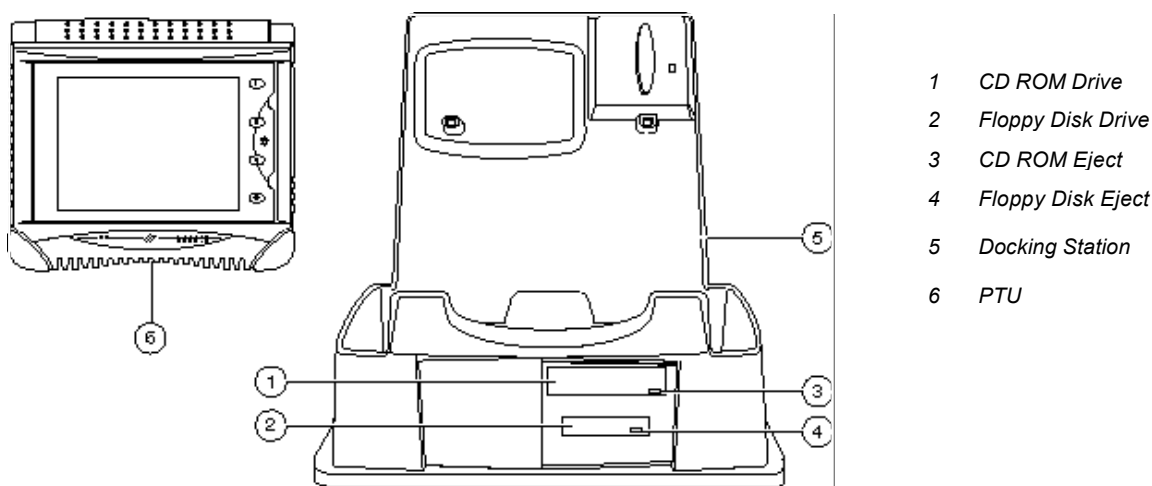


Figure 1 PTU and Docking Station

System Components

These WDS components are listed for information only. Some of these items may be standard or optional based on the configuration appropriate to your market – please check contents against the manifest list supplied with your system. Some items have a Cable Identifier (CATS ID) that is displayed during vehicle diagnostic sequences to indicate the appropriate cable, adaptor or transducer for that diagnostic operation. The following information will help you identify the system components.

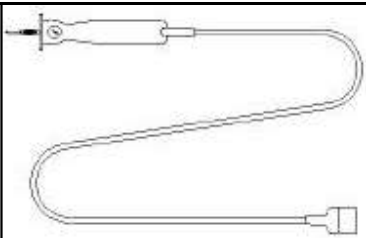
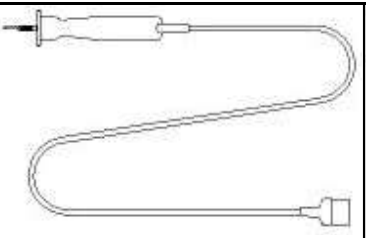
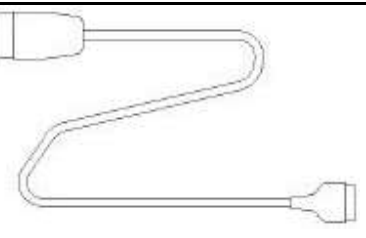
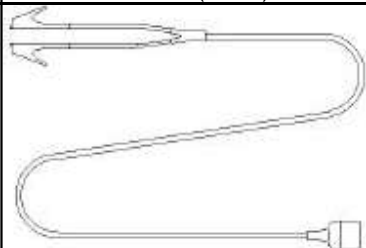
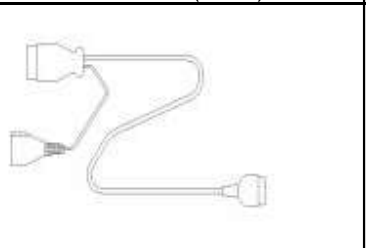
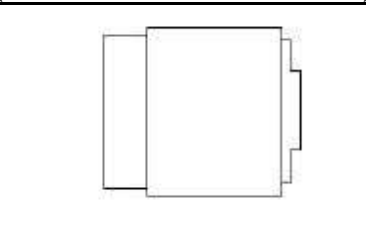
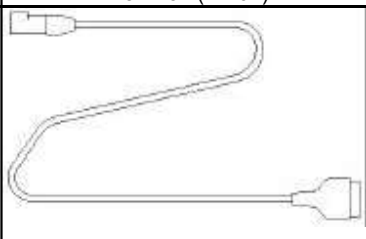
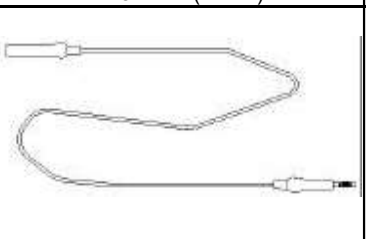
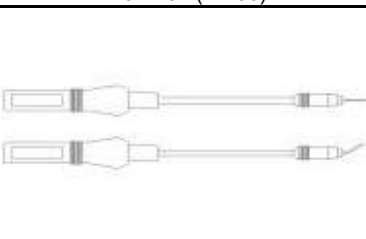
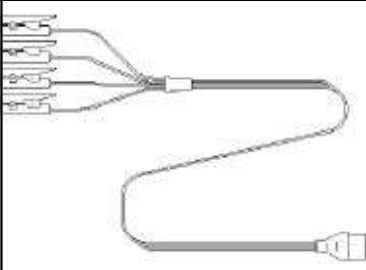
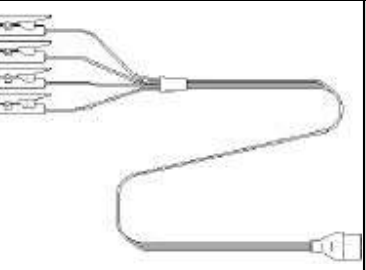
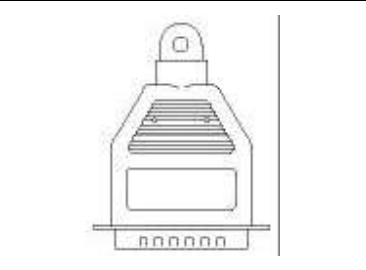
		
Red Probe 418-F229 (C-201)	Black Probe 418-F230 (C-202)	16 Pin DLC Cable Including MS-CAN (418-F557 B-259 or 418-F558 B-280)
		
PTU Battery Cable 418-F232 (A-204)	14 and 16 Pin DLC Cable 418-F241 (B-241)	NGS Cable Adaptor 418-F234 (B-206)
		
2 Pin DLC Cable 418-F235 (B-207)	Probe Extension Cable 418-F236 (C-208)	Typical Probe Tip Adaptors
		
Secondary Ignition Transducer (A-D) 418-F238 (C-214)	Secondary Ignition Transducer (E-H) 418-F239 (C-224)	Typical PTU Self Test Adaptor

Figure 2 System Components

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WDS Installation and Service Guide

Language Kit		WDS Operating System CD (Red)	Installation & Service Guide	Language Kit		WDS Operating System CD (Red)	Installation & Service Guide
Brazilian	418-F340	FCS-12986-PTB	418-F308	Italian	418-F336	FCS-12986-ITA	418-F304
Portuguese				Japanese	418-F337	FCS-12986-JAP	418-F305
Chinese	418-F325	FCS-12986-CHI	418-F294	Norwegian	418-F338	FCS-12986-NOR	418-F306
Czech	418-F326	FCS-12986-CZK	418-F295	Polish	418-F339	FCS-12986-POL	418-F307
Danish	418-F327	FCS-12986-DAN	418-F296	Portuguese	418-F341	FCS-12986-PTE	418-F309
Dutch	418-F328	FCS-12986-DUT	418-F297	Russian	418-F342	FCS-12986-RUS	418-F310
English	418-F329	FCS-12986-ENG	418-F227	Slovenian	418-F343	FCS-12986-SLO	418-F311
Finnish	418-F330	FCS-12986-FIN	418-F298	Spanish	418-F344	FCS-12986-SPA	418-F312
French	418-F332	FCS-12986-FRE	418-F300	Swedish	418-F345	FCS-12986-SWE	418-F313
French Canadian	418-F331	FCS-12986-FRC	418-F299	Thai	418-F346	FCS-12986-THI	418-F314
German	418-F333	FCS-12986-GER	418-F301	Turkish	418-F347	FCS-12986-TUR	418-F315
Greek	418-F334	FCS-12986-GRK	418-F302				
Hungarian	418-F335	FCS-12986-HUN	418-F303				

Power Cord

CEE 7/7 (Europe)	418-F281	Israel	418-F288
Australia	418-F282	Italy	418-F283
United Kingdom	418-F279	Japan	418-F287
Denmark	418-F285	Nema 5-15 (North America)	418-F280
India/South Africa (Old British)	418-F286	Switzerland	418-F284

WDS Components Description

Global Number (CATS ID)

Cart (Optional)	418-F228
Locking Wheel	418-F398
Swivel Wheel	418-F399
Drainage Tube	418-F400
Worldwide Diagnostic System (Base Kit)	
Ford Diagnostic Application CD (Blue)	FCS-12987-CD-ROM
Calibration Update CD (Black)	FCS-13457-CalibrationCD
Language Kit	See Table Above
WDS Operating System CD (Red)	See Table Above
Installation and Service Guide	See Table Above
Power Cord	See Table Above
Manifest List	418-F266
Portable Test Unit (PTU)	418-F224
Docking Station (includes 3 cable bushings)	418-F225
Standard Cables Adaptors And Transducers (CATS)	
PTU Battery Cable	418-F232 (A-204)
16 Pin DLC Cable Including MS-CAN	418-F557 (B-259) or 418-F558 (B-280)
Pressure & Vacuum Transducer	418-F237 (C-209)

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Pressure & Vacuum Adaptor Kit	418-F242
Fuel Pressure Hose Assembly	(C-219)
Pressure & Vacuum Hose Adaptor Kit	418-F323
1/8" Hose "Tee"	(C-221)
7/32" Hose "Tee"	(C-222)
1/8" Hose In-Line	(C-223)
7/32" Hose In-Line	(C-225)
1/8" Hose 3 inch (2 off per kit)	(C-239)
7/32" Hose 3 inch (2 off per kit)	(C-240)
1/8" to 7/32" Reducer	(C-226)
0.305 UNS Thread to 7/32" Hose	(C-227)
Secondary Ignition Transducer (A-D)	418-F238 (C-214)
Red Probe	418-F229 (C-201)
Black Probe	418-F230 (C-202)
Probe Extension Cable	418-F236 (C-208)
PTU Self Test Adaptor Kit	418-FS263
PTU Self Test Adaptor for Port B	418-F245 (ST-210)
PTU Self Test Adaptor for Ports C	418-F246 (ST-211)
PTU Self Test Adaptor for Serial Port	418-F247 (ST-212)
PTU Self Test Adaptor for Parallel Port	418-F248 (ST-213)
Probe Tip Adaptor Kit	418-FS264
1.0mm Diameter Pin (Black)	418-F249 (T-001)
1.0mm Diameter Socket (Black)	418-F250 (T-002)
1.9mm Diameter Pin (Red)	418-F251 (T-003)
1.6mm Diameter Pin (Yellow)	418-F252 (T-007)
1.6mm Diameter Socket (Yellow)	418-F253 (T-008)
2.8mm Diameter Pin (Green)	418-F254 (T-009)
2.8mm Diameter Socket (Green)	418-F255 (T-010)
2.8mm Flat Tab (Blue)	418-F256 (T-011)
2.8mm Timer Contact (Blue)	418-F257 (T-012)
0.64mm Diameter Pin (2 off per kit) (Purple)	418-F258 (T-013)
1.5mm Flat Tab (Brown)	418-F259 (T-014)
Optional Components	
(These may or may not be included, based on Market)	
14 and 16 Pin DLC Cable	418-F241 (B-241)
2 Pin DLC Cable	418-F235 (B-207)
NGS Cable Adaptor	418-F234 (B-206)
Secondary Ignition Transducer (E-H)	418-F239 (C-224)
Transmission Extension Kit	418-F243
Transmission Extension	(C-220)
Adaptor 1/8" NPT	(C-228)
Adaptor 1/4" NPT	(C-229)
Adaptor 1/8" BSPT	(C-230)
Transmission Extension Adaptor Kit	418-F324
Fuel Line Adaptor Kit A	418-FS244
Stainless Steel 1/2" Inlet	(F-231)
Stainless Steel 3/8" Outlet	(F-232)
Plastic 1/2" Inlet	(F-233)
Plastic 3/8" Outlet	(F-234)
Fuel Line Adaptor Kit B	418-F274
8mm Inlet	(F-235)
8mm Outlet	(F-236)
SAE J2044 Inlet	(F-237)

NOTE: With the introduction of the 16 Pin DLC Cable Including MS-CAN, the 16 Pin DLC Cable will no longer be supported.

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WDS Installation and Service Guide

Pressure and Vacuum Equipment

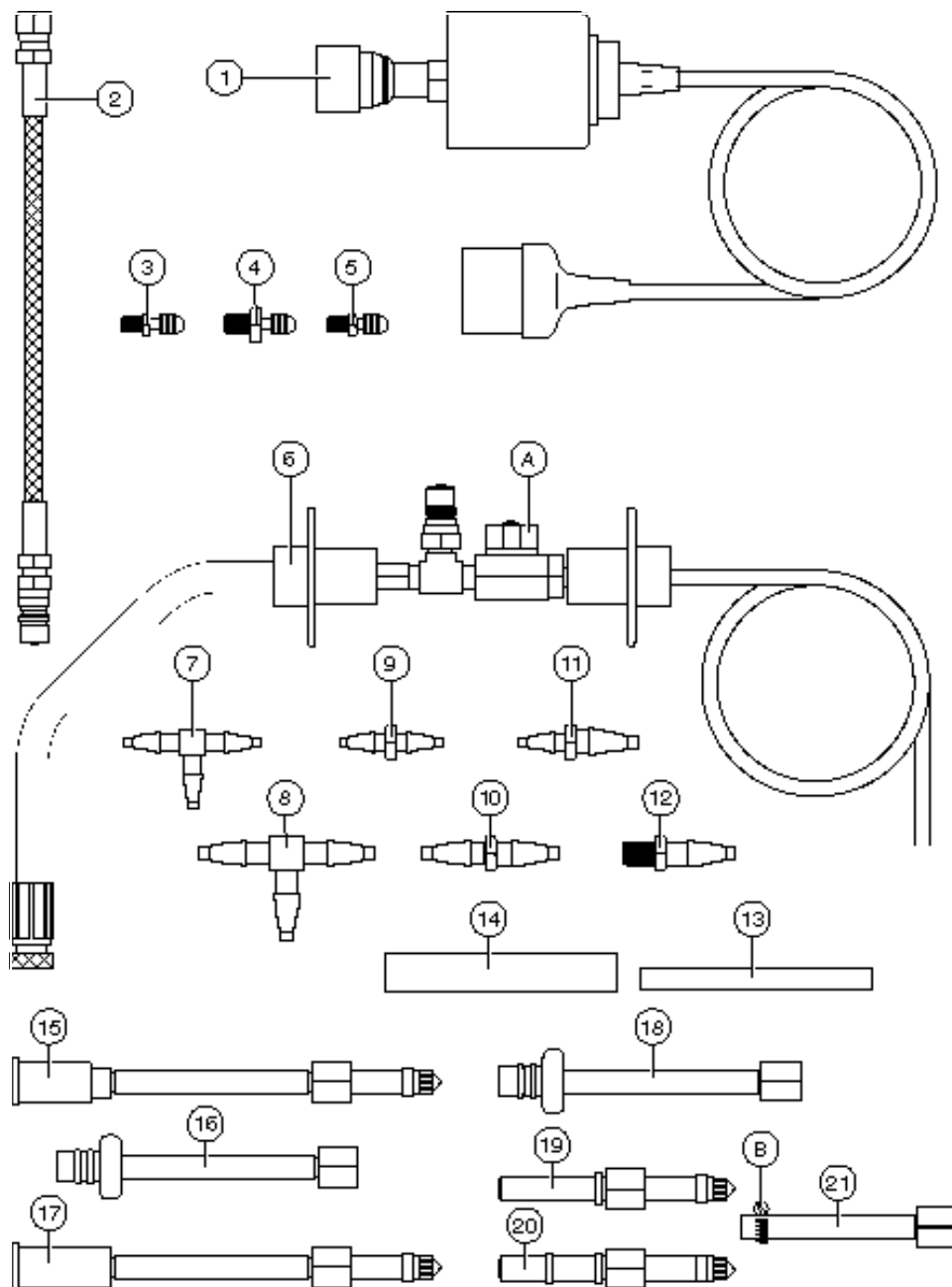


Figure 3 Pressure and Vacuum Components

- 1 Pressure & Vacuum Transducer
- 2 Transmission Extension
- 3 Adaptor 1/8" NPT
- 4 Adaptor 1/4" NPT
- 5 Adaptor 1/8" BSPT
- 6 Fuel Pressure Hose Assembly
- 7 1/8" Hose Tee
- 8 7/32" Hose Tee
- 9 1/8" Hose In-line
- 10 7/32" Hose In-line
- 11 1/8" to 7/32" Reducer
- 12 0.305 UNS Thread to 7/32" Hose
- 13 1/8" Hose 3 inch
- 14 7/32" Hose 3 inch
- 15 Stainless Steel 1/2" Inlet
- 16 Stainless Steel 3/8" Outlet
- 17 Plastic 1/2" Inlet
- 18 Plastic 3/8" Outlet
- 19 8mm Inlet
- 20 SAE Inlet
- 21 8mm Outlet
- A Purge Valve Control